

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

Listing of Claims:

Claims 1 - 13 (Cancelled)

14. (Previously presented) A semiconductor switch, comprising:

an i-GaAs layer;

a first i-AlGaAs layer formed on said first i-GaAs layer;

an i-InGaAs layer formed on said i-AlGaAs layer;

a n-AlGaAs layer formed on said i-InGaAs layer;

a first anode electrode of a diode formed on said n-AlGaAs layer and supplied

with a ground potential;

a second anode electrode of a diode formed on said n-AlGaAs layer and supplied

with said ground potential;

an n⁺GaAs layer formed between said first and second anodes on said n-AlGaAs layer; and

a cathode electrode of a diode formed on said n⁺GaAs layer and having a first end coupled to a first terminal and a second end coupled to a second terminal.

15. (Previously presented) The switch as claimed in claim 14, wherein said diode acts as capacitance when said ground potential is applied to said cathode electrode thereby said switch being rendered in ON state.

16. (Previously presented) The switch as claimed in claim 15, further comprising:

 a resistor having a first end connected to said cathode electrode and a second end supplied with said ground potential.

Claims 17 - 19 (Cancelled)

20. (New) A semiconductor switch, comprising:

 an active region formed on a semiconductor substrate;

 a cathode electrode formed on said active region;

 first and second anode electrodes formed on said active region so that said cathode electrode is arranged between said first and second anode electrodes, said first and second anode electrodes being arranged in parallel to each other and coupled with the earth potential;

 a first terminal coupled to one end of said cathode electrode; and

 a second terminal coupled to the other end of said cathode electrode.

21. (New) The switch as claimed in claim 20, wherein each of said cathode electrode and first and second anode electrodes are a metal layer.

22. (New) The switch as claimed in claim 21, wherein said first anode electrode is provided to has a Schottky junction with said active region.

23. (New) The switch as claimed in claim 22, wherein said cathode electrode is provided to has an ormic junction with said active region.

24. (New) The switch as claimed in claim 23, said switch is arranged to use for microwave or millimeter wave.

25. (New) A switching circuit, comprising:

a first coplanar transmission line having a first signal line and a first pair of conductors arranged so that said first signal line is sandwiched between said first pair of conductors, said first pair of conductors being applied to a ground potential;

a second coplanar transmission line having a second signal line and a second pair of conductors arranged so that said signal line is sandwiched between said second pair of conductors, said second pair of conductors being applied to a ground potential; and

a diode coupled to a signal line coupling said first signal line of said first coplanar transmission line and said second signal line of said second coplanar transmission line, said diode having a cathode electrode coupled to said signal line and an anode electrode coupled to a ground potential.

26. (New) The switch circuit as claimed in claim 25, wherein said cathode is supplied with a negative voltage so that the switching circuit is to be in an off state and is supplied with a zero bias so that the switching circuit is to be in an on state.

27. (New) The switch as claimed in claim 26, said switch is arranged to use for microwave or millimeter wave.